

REMARKS

Formal Matters

Applicants thank the Examiner for acknowledging claim to foreign priority and receipt of the priority document filed February 11, 2004; for reviewing and initialing the documents in the Information Disclosure Statement submitted February 11, 2004 and December 4, 2007; and indicating acceptance of the drawings filed February 11, 2004.

Status of Application

Claims 1-6 have been examined.

Claims 1-6 are rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over JP 10058798 (hereinafter referred to as "Takenaka").

By this Amendment, Applicants are adding new claims 7-12.

Specification Objection

The Examiner has objected to the title of the invention as being allegedly not descriptive and requiring a new title that is indicative of the invention to which the claims are directed. Applicants have amended the title to "Management of Print System Based on Printing Preparation and Transfer Time".

Claim Rejections - 35 USC § 112

Claims 1-6 are rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner alleges that the limitation of “*printing preparation start timing*” as being allegedly indefinite because such a limitation has not been *explicitly* depicted with sufficient descriptions in the instant claim, which will allow one of ordinary skill in the art to clearly indicate or define the differences among the other “times” (such as: transfer time, a printing preparation time for printing preparation of recording sheet, the time of completion of the printing preparation of the recording sheet, and etc.) claimed in the instant claim.

Applicants respectfully submit that “*printing preparation start timing*” enables the time of completion of transfer of the image data and the time of completion of the printing preparation of the recording sheet to be synchronized. Thus, Applicants respectfully submit that the terminology used in the independent claim is sufficiently clear and the claim meets all requirements of 35 U.S.C. § 112 second paragraph. Furthermore, Applicants submit that [t]he test for definiteness under 35 U.S.C. 112, second paragraph, is whether “those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). Applicants submit that one of skill in the art, would understand the subject matter of claim 1 when read in light of the specification.

Claim Rejections - 35 USC § 103

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over JP 10058798 (hereinafter refer as “Takenaka”).

Claim 1

Independent claim 1 recites, in part, “control means that controls printing preparation of the recording sheet in the printer *based on the transfer time*”. The Examiner maintains that Takenaka discloses the above recited feature in citing “control means for activating the output

mechanism of the printer *based on the recording start timing* determined by the determination means". (See paragraph [0016]). Applicants respectfully disagree.

In Takenaka, the recording start timing is based on the estimated processing time. (See paragraph [0018], line 7). The processing time of Takenaka is the amount of time needed to complete the bit image generation. (See paragraph [0018], lines 5-6). To the extent that the recording start timing of Takenaka is the time needed to complete the bit image generation, Takenaka does not disclose that the recording start timing is based on the "transfer time" of the image data from the outputting apparatuses to the printer, as recited in the claimed invention. If anything, Takenaka teaches a reverse relationship whereby the start of a transfer time is set based on a process time. (See abstract).

Another feature of claim 1 recites, in part, "based on the transfer time, required for the transfer of the image data when the image data is transferred from *each image data outputting apparatus*". The Examiner asserts, "determining a recording start timing ... based on the transfer time estimated by the estimation means..." of Takenaka as disclosing the above recited features. (See paragraph [0016], lines 8-10). Applicants respectfully disagree.

In Takenaka, the timing and transfer time is based on converting and printing a single raster data file. (See paragraph [0016]). To the extent that Takenaka bases the timing and transfer time on a single raster data file, Takenaka does not take into account image data from multiple sources of image data. Therefore, Takenaka does not disclose or suggest "based on the transfer time, required for the transfer of the image data when the image data is transferred from each image data outputting apparatus" as recited in the claimed invention.

Another feature of claim 1 recites, in part, "a printing preparation time required for printing preparation of the recording sheet for printing the images based on the image data".

The Examiner maintains that the “processing time estimated by the estimation means” of Takenaka as disclosing the “printing preparation time”. (See paragraph [0015]). Applicants respectfully disagree.

In Takenaka, the processing time is an estimation of time required for generating the bit image from the print data file. (See paragraph [0021]). The bit image in Takenaka is sent to an output mechanism of a printer based on a recording start timing which in turn is based on the estimated time. Takenaka, however, does not disclose that the bit image sent to an output mechanism corresponds to the “printing preparation time required for...preparation of the recording sheet for printing” as recited in the claimed invention.

Another feature of claim 1 recites, in part, “printing preparation start timing is obtained that enables the time of completion of transfer of the image data and the time of completion of the printing preparation of the recording sheet to be synchronized”. The Examiner asserts:

see Takenaka, i.e. Paragraph [0016] discloses "a recording start timing at which the bit image is sent to an output mechanism of a printer based on the transfer time estimated by the estimation means; and Paragraph [0015] discloses "a determination means for determining a recording start timing at which the bit image is sent to an output mechanism of a printer based on the processing time estimated by the estimation means".

Applicants respectfully disagree. Takenaka, however, does not disclose the synchronization of either the transfer time or processing time to that of the “completion of the printing preparation of the recording sheet”. Both the processing time and transferring time of Takenaka corresponds to data transfer times, whereas the “time of completion of the printing preparation” corresponds to the preparation of “the recording sheet” for printing. Further, paragraph [0016] of Takenaka does not disclose that the output mechanism of the printer is synchronized to either the transfer time or processing time so that at the completion of the transfer time or processing time, the

output mechanism of the printer of Takenaka is ready to print. Thus, Takenaka does not disclose or suggest that the “time of completion of transfer of the image data and the time of completion of the printing preparation of the recording sheet to be synchronized” as recited in the claimed invention.

Another feature of claim 1 recites, in part, “the printing preparation of the recording sheet is started at the above described printing preparation start timing”. The Examiner asserts:

(see Takenaka, i.e. Paragraph [0016] discloses “a control means for activating the output mechanism of the printer based on the recording start timing...”)

Applicants respectfully disagree. The “recording start timing” of Takenaka does not correspond to the “printing preparation start timing” relative to the recording sheet as recited in the claimed invention. As stated previously, neither the transfer time or processing time of the image data discloses that the timing is based upon “printing preparation of the recording sheet for printing”.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of independent claim 1, and claims 2-6 *at least* by virtue of their dependencies.

Claim 3

A feature of Claim 3 recites in part, “transfer time information indicating the transfer time of the image data of the image data outputting apparatus is input and stored in the control means in advance”. The Examiner asserts:

(see *Takenaka* i.e. Paragraph [0005], discloses ‘print information PI sent from a client is inputted ... converting the print information PI to bit image information BI of a type required by the recording unit .. the bit image information BI is also stored in a hard disk unit’; also see Figure 17 and Paragraphs [0050] -[0052]).

Applicants respectfully disagree.

In Takenaka, only the bit image information BI is stored in a hard disk unit. (See paragraph [0005]). Converting the print information PI to bit image information BI in Takenaka, does not disclose the “transfer time information” of the claimed invention. The bit image information B1 of Takenaka refers to image data and Takenaka does not disclose or teach how image data corresponds to “transfer time information”. Furthermore, storing the bit image information B1 on a hard disk unit of Takenaka, does not correspond to “transfer time information...stored in the control means in advance.” Thus, Takenaka does not disclose or suggest, “transfer time information indicating the transfer time of the image data of the image data outputting apparatus is input and stored in the control means in advance”.

Claim 4

Claim 4 recites in part, “the control means obtains a difference time between the transfer time and the printing preparation time”. The examiner asserts that:

the determination means 25 determines the activation timing based on a remaining time obtained from the newly calculated transfer time ... the steps Sc4 to Sc6 are repeated until the remaining time falls within the startup time of the printing section;

as disclosing “the control means obtains a difference time between the transfer time and the printing preparation time” as recited in the claimed invention. Applicants respectfully disagree.

The determination means in Takenaka operates by continually comparing the remaining time for receiving all of the raster data from the present time, to the start-up time of the printing section. (See paragraph [0055]). To the extent that Takenaka makes the continual comparisons, Takenaka does not determine when the remaining time would coincide with the startup time, but merely runs steps Sc4 to Sc6 until the two times coincide. Thus, Takenaka, does not disclose or

suggest, "the control means obtains a difference time between the transfer time and the printing preparation time".

Claims 5 and 6,

For the same reasons that claim 4 is patentable over the prior art, claims 5 and 6 are also patentable over the prior art as claims 5 and 6 recite similar claim limitations as claim 4.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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